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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,743	02/23/2004	Dany Sylvain	7000-272	2454

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CARY, NC 27518

EXAMINER
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KIM, WESLEY LEO

ART UNIT	PAPER NUMBER
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2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/20/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No. 10/784,743	Applicant(s) SYLVAIN, DANY	
	Examiner Wesley L. Kim	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. \*See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 30-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 30-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/1/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 12/11/06 have been fully considered but they are not persuasive.

- Applicant argues that the Patent Office states that "remote terminal" is not mentioned in the Specification, the Patent Office does not present any evidence or reasons for the rejection as required by the MPEP and relevant case law and, therefore, has failed to satisfy its burden and the 35 U.S.C. 112, first paragraph, is improper and must be withdrawn.

The examiner respectfully disagrees. The examiner has presented reasons for the rejection, the reason being "Claims 1 and 30 recite the phrase "remote terminal", which is not mentioned in the specification at all." That is the reason why the rejection under 35 U.S.C 112, first paragraph was given. The examiner rejected the claims 1 and 30 using a form paragraph for which support can clearly be found in the MPEP 2163, which provides the supporting case law. The rejection is maintained in the current rejection. If the examiner is wrong about the "remote terminal" not being in the specification, please provide the Columns, Paragraphs, and line numbers at where the support can be found.

- Applicant argues that the first and second connection of Claim 1 are not disclosed in paragraph 43, lines 1-4, in Fig.4 and in paragraph 49 of Kallio.

The examiner respectfully disagrees. The first connection: "a first connection from the wireless switch to the mobile terminal (Par.43:1-4 and Fig.4:

initially the wireless switch, i.e. BSC 114, is connected to the mobile terminal 150, but after handoff the connection is disconnected)". There is a first connection.

The second connection: "a second connection between the wireless switch and a remote terminal (Par.49 and Par.43;8-16, BSS 110 connected to BSC 114 measures connections to neighbors, i.e. WLAN 210, which is the second connection. WMC receives handoff request in response to the BSS determining which other neighbors should be handed off to; the WMC is the remote terminal)". There is a second connection, which occurs at the same time as the first connection (Par.43; line 8 "During the call").

- Applicant argues that Kallio does not teach the handoff request of Claim 1 is received from the wireless switch.

The examiner respectfully disagrees. Kallio teaches "receiving a handoff request from a wireless switch supporting a call to the mobile terminal over a cellular access network (Par.49;1-4, BSS comprising the BSC indicates a handover request)".

- Applicant argues that a third connection prior to handoff is not mentioned in Kallio and further does not mention connecting a second connection with a third connection to effect a handoff.

The examiner respectfully disagrees. The examiner does not believe that the claim language states that the third connection must be effected before the handoff. The claim language indicates in step "a)" that a handoff is received and

in step "c)" that a handoff instruction is provided. To the examiner it is unclear what does the providing and what does the receiving, to the examiners best understanding of the claim language, it seems that something first provides a handoff instruction and then something receives the handoff instruction/request. It does not seem as if the steps a) – c) of claim 1 must be performed in alphabetical order. It seems as if the required steps were only listed but not necessarily in any order. Therefore the examiners broadest reasonable interpretation is still correct. See USC 112 rejections below.

Kallio teaches providing a handoff instruction to the wireless switch to connect the second and third connections to effect handoff of the call from the cellular connection to the local wireless connection (Par.50;5-7 and Par.50;12-15, handoff instructions are sent to a mobile station via the BSS (i.e. BSC) to connect the second and third connections to effect handoff).

- Applicant argues that Kallio does not teach that the WMC SW is a switch and therefore Fig.1;210 cannot teach both a wireline switch and a remote terminal.

The examiner respectfully disagrees. Kallio teaches the third connection is established in part between a wireline switch (Col.28-29 and Fig.1;210, WMC SW is the wireline switch and is capable of handing-over communications between different networks, i.e. switching) and the terminal adaptor (Fig.1;210 WMC is also a WLAN access point).

- Applicant argues that Kallio does not teach a terminal adaptor and a third connection.

The examiner respectfully disagrees. To the examiner the remote terminal, which is not described in the specification, seems to be another term for terminal adaptor, so the terminal adaptor is taught by Kallio and a third connection is taught by Kallio, which is the connection between the WMC access point and the mobile station.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-15 and 30-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 30 recite the phrase "remote terminal", which is not mentioned in the specification at all. The examiner is confused as how this term should be interpreted and so the following rejections will be made with the best understanding of the current claims. If the examiner is wrong about the "remote terminal" not being in the specification, please provide the Columns, Paragraphs, and line numbers at where the support can be found.

2. Dependent Claims 2-15 and Claims 31-44 are also rejected under 35 U.S.C 112, first paragraph as being dependent upon the rejected Independent claims 1 and 30.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-15 and 30-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 30 indicate in step "a)" that a handoff is received and in step "c)" that a handoff instruction is provided. To the examiner it is unclear what does the providing and what does the receiving, to the examiners best understanding of the claim language, it seems that something first provides a handoff instruction and then something receives the handoff instruction/request to effect handover such that the second and third connections are connected. It does not seem as if the steps a) – c) of claim 1 must be performed in alphabetical order. It seems as if the required steps to perform the method were listed but not necessarily in any order.

Claims 1 and 30, recites a "remote terminal" which was not defined in the specification anywhere. The examiner will assume that a remote terminal is the terminal adaptor.

4. Dependent Claims 2-15 and Claims 31-44 are also rejected under 35 U.S.C 112, second paragraph as being dependent upon the rejected Independent claims 1 and 30.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2, 7-15, 30-31, and 36-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Kallio (U.S. Pub 2002/0147008 A1).

**Regarding Claims 1 and 30,** Kallio teaches a method for transitioning a call with a mobile terminal from a cellular connection to a local wireless connection (Par.43;1-4), the method comprising: a) receiving a handoff request from a wireless switch supporting a call to the mobile terminal over a cellular access network (Par.49;1-4, BSS comprising the BSC indicates a handover request), the call comprising a first connection from the wireless switch to the mobile terminal (Par.43;1-4 and Fig.4; initially the wireless switch, i.e. BSC 114, is connected to the mobile terminal 150, but after handoff the connection is disconnected) and a second connection between the wireless switch and a remote terminal (Par.49 and Par.43;8-16, BSS 110 connected to BSC 114 measures connections to neighbors, i.e. WLAN 210, which is the second connection. WMC receives handoff request in response to the BSS determining which other neighbors should be handed off to; the WMC is the remote terminal); b) effecting establishment of a third connection to the mobile terminal via a terminal adaptor (Par.50;14-15 and Fig.4, connection between WMC, i.e. terminal adaptor, and mobile terminal is established), which supports local wireless communications with the mobile terminal (Par.50;14-15); and c)



providing a handoff instruction to the wireless switch to connect the second and third connections to effect handoff of the call from the cellular connection to the local wireless connection (Par.50;5-7 and Par.50;12-15, handoff instructions are sent to a mobile station via the BSS (i.e. BSC) to connect the second and third connections to effect handoff).

**Regarding Claims 2 and 31**, Kallio further teaches the third connection is established in part between a wireline switch (Col.28-29 and Fig.1;210, WMC SW is the wireline switch and is capable of handing-over communications between different networks, i.e. switching) and the terminal adaptor (Fig.1;210 WMC is also a WLAN access point).

**Regarding Claims 7 and 36**, Kallio further teaches the third connection is established in part over a packet network operatively coupled to the terminal adaptor (Par.33; Packet network coupled to the terminal adaptor).

**Regarding Claims 8 and 37**, Kallio further teaches the handoff request is received and the handoff instructions are provided using a cellular protocol (Par.49 and Table in pg.6 #4, BSC indicates handover) while the establishment of the third connection is effected using a packet-based communication session protocol (Par.50;14-15, when WLAN is used packet protocols are used).

**Regarding Claims 9 and 38**, Kallio further teaches the third connection is established in part between a first media gateway (Fig.4;310) and the mobile terminal (Fig.1;150) through the terminal adaptor (Fig.1;210, WLAN access point), the first media gateway connected to the wireless switch via a cellular-

based trunk (Fig.4; the gateway is connected to the MSC), the method further comprising sending control messages to the first media gateway and the mobile terminal to establish the third connection (Par.49; handover request sent via gateway to establish the third connection).

**Regarding Claims 10 and 39**, Kallio further teaches the first media gateway facilitates interworking between the cellular-based trunk and a packet-based session forming part of the third connection (Fig.4, the gateway facilitates interworking between the cellular-based trunk (i.e. MSC) and a packet-based session forming part (Fig.4;230) of the third connection).

**Regarding Claims 11 and 40**, Kallio further teaches providing a handoff message to the wireless switch to confirm handoff to the third connection (Par.50;11-12).

**Regarding Claim 12-15 and 41-44**, Kallio further teaches the handoff request comprises a cell site identifier to which the wireless switch is attempting to handoff the call (Par.46;7-11 and Par.47;1-8, when a handover is desired, the list of undesired cell identifiers are dropped from the measurement reports, so only the desired cell identifier remains), the cell site identifier corresponding to the terminal adaptor (Fig.1;210, the terminal adaptor, i.e. WLAN access point, is within the cell site).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio (U.S. Pub 2002/0147008 A1) in view of Steward et al (U.S. Patent 6373828 B1).

**Regarding Claims 3 and 32**, Kallio teaches all the limitations as recited in Claims 2 and 31, and Kallio further teaches the handoff request is received and the handoff instructions are provided using a cellular protocol (Par.49 and Par.50;1-4) however Kallio is **silent on** while the establishment of the third connection is effected using a public switched telephone network-based protocol.

Steward teaches that a cellular and another wireless communication system can use a public switched telephone network-based protocol to effect establishment of the third connection (Fig.4 and Col.7;40-44 and Col.8;45-52). To the examiner, a WLAN and Generic C based wireless communications systems are wireless systems, and with the combination of Kallio and Steward, it would be obvious to one of ordinary skill in the art it envision handing off communications from a cellular communication system to another wireless communications system, according to Kallios teachings.

To one of ordinary skill in the art, it would have been obvious to modify Kallio with Steward at the time of the invention such that the establishment of the third connection is effected using a public switched telephone network-based

protocol, to provide a method of handing off communications from a cellular network to an another wireless network (i.e. DECT).

3. Claims 4-5 and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio (U.S. Pub 2002/0147008 A1) in view of Jawanda (U.S. Patent 6243581 B1).

Regarding Claims 4-5 and 33-34, Kallio teaches all the limitations as recited in claims 2 and 31, and Kallio further teaches that there is a first media gateway (Fig.4;310) connected to the wireless switch via a cellular based trunk, however Kallio **is silent on** a second media gateway connected to the wireline switch via a public switched telephone network based trunk, the method further comprising sending call initiation messages to the first and second media gateways and the wireline switch to establish the third connection.

Jawanda teaches that there is a second media gateway connected to the wireline switch via a public switched telephone network based trunk (Col.2;44-47, Fig.1;13 and Fig.1;22, PSTN or IP trunk is connected to the second gateway).

Kallio teaches that a call initiation message is sent along the path from the serving network to the target network (Par.49-50), so to a skilled artisan it would be obvious to do the same in the communication network of Jawanda such that the message would pass through the first and second gateway and the wireline switch to establish the third connection.

To one of ordinary skill in the art, it would have been obvious to modify Kallio with Jawanda at the time of the invention such that, a second media

gateway connected to the wireline switch via a public switched telephone network based trunk, the method further comprising sending call initiation messages to the first and second media gateways and the wireline switch to establish the third connection, to provide a method for the gateways to convert the messages into the correct format before transmitting them to the other network so that the communications between the originator and the destination can remain stable and reliable throughout the handoff process.

4. Claims 6 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio (U.S. Pub 2002/0147008 A1) in view of Salmela et al (U.S. Patent 6181938 B1).

**Regarding Claims 6 and 35**, Kallio teaches all the limitations as recited in claims 2 and 31, however Kallio **is silent on** the third connection is established using a directory number associated with the mobile terminal when supported via the terminal adaptor.

Salmela teaches that it is well known in the art to use one primary number (i.e. mobile directory number) regardless of whether the terminal is located in one network or another (Abstract). To a skilled artisan it is obvious that the third connection would be established using the directory number of the mobile terminal when supported via the terminal adaptor.

To one of ordinary skill in the art, it would have been obvious to modify Kallio with Salmela at the time of the invention, such that the third connection is established using a directory number associated with the mobile terminal when

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supported via the terminal adaptor, to provide a method where a mobile terminal can roam between different networks that support subscriber mobility, which allows a call to be routed to the called subscriber terminal in the respective network.

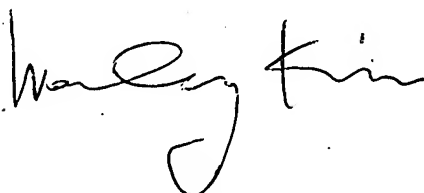
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley L. Kim whose telephone number is 571-272-7867. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WLK



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